

Understanding Mental Health and Mental Illness: Social Anxiety Disorder (SAD)

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Abstract:

This article aims to present researchers' understanding of social anxiety disorder by reviewing the existing academic literature and conducting a multi-faceted review of the research literature on social anxiety disorder in the past century and modern times. The content first includes how researchers define social anxiety disorder and the importance of understanding social anxiety disorder research. Secondly, this article explores how modern literature identifies the characteristics, descriptions, and symptoms of social anxiety disorder. Finally, the author will also explain the current impact of social anxiety disorder on individuals and society, as well as the various current medical treatment options. The focus of this article will be primarily on understanding social anxiety disorder, a mental health disorder that is of great relevance to modern people and providing an overview of the various aspects of this mental illness. The research can have a positive influence on the practice and research of social anxiety disorder in many aspects. For example, this article can guide clinical practice and provide more effective treatment methods for patients with social anxiety disorder. Secondly, this article comprehensively reviews the existing literature. The review helps researchers understand the shortcomings of current research and inspires future research. Finally, the research content also uplifts public awareness of mental illnesses such as social anxiety disorder, making people pay more attention to mental health issues.

Keywords: Social Anxiety Disorder, Pathophysiology, Clinical practice

1. Introduction

Social anxiety disorder (SAD), commonly known as social phobia, is considered a pervasive and common psychological disorder. It is estimated that approximately 15 million Americans suffered from social anxiety disorder in 2017, which makes social anxiety disorder even considered the third most common disorder among mental illnesses [1,2]. An intense and persistent fear and nervousness of public social situations characterize this psychological disorder. People with social anxiety disorder often feel oppressive pain and anxiety during social interactions with others. People with social anxiety disorder are always afraid of receiving negative comments or embarrassing events during interactions with others. In most cases, patients with social phobia can recognize the irrationality of their fears in social environments. Moreover, they have difficulty dealing with this fear and thus generate more anxiety [1]. Social anxiety disorder also has chronic and disabling potential and is highly associated with other comorbidities. In addition, another point that needs attention is that current mental health professionals tend to ignore the symptoms and importance of social anxiety disorder when

diagnosing the symptoms of social anxiety. This leads to the fact that even though the onset of this mental illness is prolonged, the condition is not diagnosed until later in life. This fact also reiterates that researchers should pay attention to the study of this disorder. Common symptoms of social anxiety disorder can have a severe negative impact on patients' professional, social, and other essential areas and undermine the quality of life and personal life of patients—mental and physical health [1].

2. Methodology

To ensure that this article can comprehensively assess social anxiety disorder, I systematically reviewed multiple past studies, focusing on multiple research aspects in this field. First, regarding retrieval, I extensively searched the literature in related fields through the Google Scholar website and the Syracuse Library. To ensure the accuracy of this review of social anxiety disorder, most of this literature covers essential aspects of social anxiety disorder, including an overview of three distinct aspects of etiology, impact on individuals and society, and clinical treatment guidelines.

3. Results

3.1 Etiology

Delving deeper into the pathophysiology of social phobia is an essential step in understanding this psychological disorder. It involves examining the underlying biological, psychological, and environmental factors that contribute to the intense discomfort and anxiety that individuals with social anxiety disorder experience in social situations. These three main factors that cause social anxiety disorder do not work alone but are full of complex interactions. Therefore, a detailed understanding of each factor can help develop targeted intervention measures or effective treatment programs.

3.1.1 Biological Influence

Biological factors, which I will review first, play an essential role in the pathophysiology of social anxiety disorder that cannot be ignored. The foremost thing is that biological studies show that people with a family history of anxiety disorders have a greater chance of developing social anxiety disorder [3]. Higa-McMillan and Ebessutani's study, focuses on youth and young adults as potential patients with social anxiety disorder and in-depth research on the potential biological factors for their development of social anxiety disorder, including but not limited to genetic predispositions and brain structure and other etiological pathways." This study shows that genetic factors play a significant role in increasing the risk of social anxiety disorder in young individuals. In addition, the study used family studies and twin studies in research methods to confirm the critical role that genetic factors play in the development of social anxiety disorder. For family studies, it compares the relationships between individuals with social anxiety disorder and their immediate family members to explore how genetic factors specifically influence the incidence. The study tested whether other immediate family members in families with social anxiety disorder had similar fear and anxiety in social situations. This found that the prevalence of these immediate family members was greater than that of individuals without social anxiety disorder. Result shows that there is a correlation between social anxiety disorder and related family relatives, so it is reasonable to speculate that genetic factors play a role in causing social anxiety disorder. Another critical study is the Twin Study, which evaluates the relationship between genetics and the incidence of social anxiety disorder by comparing tests on the incidence of social anxiety disorder between identical twins and fraternal twins. One thing that needs to be explained is that identical twins and fraternal twins were chosen as experimental subjects and compared because of the difference in genetic percentage

between them. The experimental prediction is that the incidence of social anxiety disorder among identical twins is significantly higher than that among fraternal twins, thus further supporting the link between genetic factors and incidence. As a Quasi-experiment, this experiment controlled all variables except the two levels of independent variables (gene percentage) and was used to confirm the internal validity. It excluded the influence of confounding variables such as environmental factors like family background, education level, and socioeconomic status on the experiment and only focused on social anxiety disorder. Genetic factors lead to similarities in various aspects, including symptom presentation, disease progression, and response to treatment. The experimental results did prove the experimental hypothesis, suggesting that genetic factors are indeed an essential part of the pathology of social anxiety disorder. The research of Higa-McMillan and Ebessutani provides a large amount of experimental data and theoretical support for our understanding of the pathogenesis of social anxiety disorder. They also emphasized the relationship between specific brain areas such as Amygdala, Hippocampus, Anterior Cingulate Cortex, and Prefrontal Cortex of patients with social anxiety disorder and emotional regulation by exploring the role of brain structure. Abnormalities related to fear processing once again confirm the importance of biological factors in the development of social anxiety disorder [3].

3.1.2 Psychological Factors/Developmental Issues

Prousky's study "Intolerance of Uncertainty: A Cognitive Vulnerability Related to the Etiology of Social Anxiety Disorder" provides an in-depth discussion of how psychological factors and developmental issues contribute to the pathology of social anxiety disorder. He stated that the first thing to focus on is cognition—problems with bias [4]. Research has pointed out that when facing uncertainty, that is, in complex social situations, cognitive bias is an essential factor leading to social anxiety disorder. Patients with SAD tend to pay more attention to the results of negative interactions between others and themselves, such as embarrassment. Patients are more likely to over-interpret the results of these negative interactions and increase the risk of social anxiety that ordinary people cannot feel. In addition, another way to interpret Prousky's argument is that patients with social anxiety disorder have more negative cognitive biases, leading them to excessively self-focus on behaviors that they should ignore and delusional thoughts about others' negative evaluations of them when socializing. Therefore, this unique biased cognitive model continues to affect the patient's social anxiety state, maintaining or even gradually deepening the anxiety and fear the patient feels in social behavior. Prousky also em-

phasized the correlation between cognitive vulnerability and individual emotion regulation ability. Experimental data proves that patients with social anxiety disorder have lower emotion regulation ability than ordinary people when faced with social uncertainty by using standardized self-report scales like the Emotion Regulation Questionnaire, resulting in negative states such as anxiety that cannot be calmed or eliminated in time. Finally, the avoidance behaviors that individuals usually adopt will also play a specific role in maintaining the symptoms of social anxiety disorder. For example, patients with social anxiety disorder often avoid parties and other similar unfamiliar social situations full of uncertainty to avoid the risk of increasing anxiety. However, this will hinder the individual's social function and adaptability and aggravate the development of symptoms of social anxiety disorder [4]. Therefore, by considering the tolerance of uncertainty as one of the psychological factors, we now have more confirmation that psychological factors are one of the critical factors in the pathology of social anxiety disorder.

3.1.3 Environmental Factors

Norton and colleagues explained environmental factors as one of the pathological factors of social anxiety disorder; they split the explanation into multiple parts, including but not limited to childhood experiences, social environment, and stressful events. First, regarding childhood experiences, research points out that the quality of the parent-child relationship and early social experiences will shape individuals' responses to current social situations. For example, children from dysfunctional families are more likely to develop cognitive patterns that are overly sensitive to criticism. This persistent negative cognitive style gradually solidifies and eventually leads to the formation of social anxiety disorder; in addition, the quality of the parent-child relationship and the parent's educational methods will affect children's ability to adapt to various social situations. A critical and controlling family environment is more likely to increase the risk of children suffering from social anxiety disorder. Secondly, in terms of stressful events, negative social experiences, and negative social evaluation will increase the incidence of social anxiety [5].

4. Discussion

The three papers on the etiology of social anxiety disorder cited in the results section of this article have verified that biological factors, psychological factors, and environmental factors do have a correlation or even causal relationship with the onset of social anxiety disorder [3-10]. Although we have obtained evidence that biological, psychological, and environmental factors are some of the main etiology factors that cause social anxiety symptoms,

it is necessary further to explore the research methods of these three papers. Understanding the connection and differences between these research methods can further help guide future research and treatment methods for social anxiety disorder. Researchers used various methods to find that different factors significantly affect social anxiety disorder. First, Maass, V. S.'s research method mainly relies on his years of clinical experience as a psychotherapist for social anxiety disorder and combines the psychological theories that have been established and reviewed by peers to analyze the relationship between biological factors and social anxiety pathology. De, L. O. F.'s research method also includes theoretical analysis. He used more peer-reviewed literature reviews to confirm the impact of psychological factors on social anxiety disorder. He created a framework of social anxiety symptoms to summarize the clinical practice and research results on social anxiety disorder and also guided psychological professionals to diagnose and treat social anxiety disorder. Finally, Higa-McMillan, C. K., & Ebesutani, C. studied environmental factors. This study adopted a cross-sectional research design, using professional psychological assessment tools and questionnaire surveys to design observation experiments to explore how environmental and other factors are related to social anxiety disorder; such research methodology ensures that relationships between variables are accurately identified. All three articles on the pathology of social anxiety disorder used literature reviews to study and summarize the relevant information on social anxiety disorder. Still, each article used research methods other than literature reviews, such as theoretical analysis, clinical practice, and design observation experiments.

It is also worth noting that the samples used in the three articles when studying the pathology of social anxiety disorder also have similarities and differences. The research samples of the three studies all focus on patients who already have social anxiety disorder and try to focus on more different age groups and different populations. Still, if the scholar explores these samples in detail, it is easy to find that they have more differences than similarities. First, Maass, V. S.'s study focused more on patients with social anxiety disorder and their relatives and friends. It provided recovery guidelines and other support to these research participants based on the APA's ethical guidelines. Higa-McMillan, C. K., & Ebesutani, C. focused on adolescents and young adults, conducted observational studies on these samples (using questionnaires, etc.), and finally explored the leading causes and related factors of social anxiety disorder in adolescents and young adults. By comparing the three kinds of literature on the various aspects of the etiology of social anxiety disorder cited in this article, we can have a more comprehensive under-

standing of the similarities and differences in the samples and research results of current research in the field of social anxiety disorder, and guide researchers who want to study this field in the future by establishing a theoretical framework, provide research design, and clarify sample definition standards, etc.

5. Limitations and Future Directions

Research in the field of social anxiety disorder, especially in pathology, usually has similar limitations. First, some studies are mainly based on the author's clinical experience and personal insights. Therefore, the theories or recovery strategies proposed in the experiment may be more subjective, such as personal bias, significantly affecting the research results. Secondly, some studies, such as cross-sectional experiments, are too limited in selecting experimental samples. There may be sample selection bias, such as only covering adolescent groups but no other groups. This will lead to a lack of external and internal validity in the study, making it difficult to confirm the applicability to the entire group of social anxiety patients.

According to the limitations of the studies mentioned above, researchers should adopt the various research methods explained in this paragraph in future research directions to eliminate the limitations of current research experiments:

1. In the study of social anxiety recovery strategies, future studies or experiments should adopt long-term tracking and more quantitative methods combined with clinical experiments on social anxiety patients to verify the effectiveness of the proposed treatment plans for various pathological factors.
2. In research projects that are overly subjective or biased, researchers should explain the experimental methods in detail so that peer professionals can fully replicate the study. Repeating the experiment can better demonstrate the objectivity and durability of experimental theories.
3. In terms of sample selection, future studies should establish a random sampling plan to ensure that the selected research samples can cover and represent all social anxiety disorder patients, and research findings for different groups should be consolidated to test whether consistent conclusions can be reached; by improving the sampling plan, the external validity of the research experiment can be increased, and more accurate research conclusions can be obtained..

6. Conclusion

This paper provides a comprehensive and in-depth review of social anxiety disorder, focusing on the various factors that lead to the pathology of social anxiety disorder and

how these factors affect the treatment options of individuals, and discusses the research content, limitations, and future research directions in the field of social anxiety disorder. Among the many factors in the pathology of social anxiety disorder, biological factors, psychological factors, and environmental factors are the three most influential factors. Studies have shown that genetic predispositions and neural factors increase the risk of social anxiety disorder and how to tailor treatment plans for various symptoms caused by biological factors. Secondly, psychological factors related to cognitive biases play a vital role in the clinical manifestations of social anxiety disorder; finally, environmental factors such as childhood life experiences also determine the frequency and course of individual social anxiety disorder.

Finally, by comparing the current research, this article discusses the different research samples, research methods, and research conclusions cited in the literature on the pathology of social anxiety disorder. Although research in recent decades has made significant progress in understanding social anxiety disorder, these studies still have limitations. This article provides guidance and suggestions for future researchers by studying these limitations, aiming to make future research on social anxiety disorder more stable and effective. It should also be noted that the current treatment of diseases such as social anxiety disorder still faces significant challenges, the most obvious of which is overlapping diseases such as depression. Treating these overlapping symptoms requires more consideration of more complex pathologies, and these complexities will seriously hinder the effectiveness of targeted treatment of social anxiety disorder. Therefore, more professional research in the field of social anxiety disorder is urgently needed; only in this way can it help patients and families achieve a high quality of life.

The impact of social anxiety disorder on individuals is not limited to general physiological and psychological damage but also includes specific functional impairments in life areas, including performance at work, school, and society. Therefore, in-depth research on various pathological factors can improve the targeted treatment of social anxiety disorder, thereby further improving the effectiveness of treatment plans and bringing hope to social anxiety disorder patients to relieve symptoms and improve their overall quality of life.

References

- [1] Maass, V. S. (2017). *Understanding social anxiety: A recovery guide for sufferers, family, and friends*. Praeger.
- [2] de, L. O. F. (2013). *Social anxiety disorder: From research to practice*. Nova Biomedical.
- [3] Higa-McMillan, C. K., & Ebesutani, C. (2011). *The etiology*

- of Social Anxiety Disorder in adolescents and young adults. *Social Anxiety in Adolescents and Young Adults: Translating Developmental Science into Practice.*, 29–51. <https://doi.org/10.1037/12315-002>
- [4] Prousky, J. E. (2015). Intolerance of uncertainty: A cognitive vulnerability related to the etiology of Social Anxiety Disorder. *Ethical Human Psychology and Psychiatry*, 17(3), 159–165. <https://doi.org/10.1891/1559-4343.17.3.159>
- [5] Norton, A. R., & Abbott, M. J. (2017). The role of environmental factors in the aetiology of Social Anxiety Disorder: A review of the theoretical and empirical literature. *Behaviour Change*, 34(2), 76–97. <https://doi.org/10.1017/bec.2017.7>
- [6] Baumgardner, M., & Benoit Allen, K. (2023). Integrating cognitive-behavioral therapy with compassion-focused therapy for the treatment of Social Anxiety Disorder: An evidence-based case study. *Clinical Case Studies*, 23(2), 127–145. <https://doi.org/10.1177/15346501231197403>
- [7] Hansen, B., Eide, T. O., Reiråskag, M. A., Tjelle, K. A., Solem, S., & Hagen, K. (2024). The Bergen 4-day treatment for Social Anxiety Disorder: A pilot study. *BMC Psychiatry*, 24(1). <https://doi.org/10.1186/s12888-024-05607-4>
- [8] Parsaei, M., Hasehmi, S. M., Seyedmirzaei, H., Cattarinussi, G., Sambataro, F., Brambilla, P., & Delvecchio, G. (2024). Microstructural white matter alterations associated with Social Anxiety Disorders: A systematic review. *Journal of Affective Disorders*, 350, 78–88. <https://doi.org/10.1016/j.jad.2024.01.118>
- [9] Piccirillo, M. L., & Rodebaugh, T. L. (2022). Personalized networks of social anxiety disorder and depression and implications for treatment. *Journal of Affective Disorders*, 298, 262–276. <https://doi.org/10.1016/j.jad.2021.10.034>
- [10] Shahid, S., Kelson, J., & Saliba, A. (2024). Effectiveness and user experience of virtual reality for Social Anxiety Disorder: Systematic Review. *JMIR Mental Health*, 11. <https://doi.org/10.2196/48916>